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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/658,683

Applicant(s)

SINGLER ET AL.

Examiner

KimbleAnn Verdi

Art Unit

2194

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1 – 25 are pending in the application.

Continued Examination Under 37 CFR 1.114

2. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 30, 2009 has been entered.

Response to Arguments

3. Applicant's arguments with respect to claims 1-25 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. **Claims 1-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.**

6. The claim language in the following claims is not clearly understood:
- a. As per Claim 1, lines 4-6, it is not clearly understood what is meant by to convert communication between an application and one or more client programs. (i.e. communication is equivalent to communication data, Examiner suggests amending the claim as follows: convert communication data between an application and one or more client programs).
 - b. As per claims 16, and 18, these claims have the same deficiencies as claim 1.
 - c. As per claim 21:
 - i. This claim has the same deficiencies as claim 1.
 - ii. Line 8, it is uncertain how the process is selected based on the connection request. (i.e. selection data elements contained in the connection request are used to select the process; Examiner suggests amending the claim as follows: selecting a process from a plurality of processes based on selection data elements in the connection request, wherein each selection data element specifies an adapter type, a client type, or data describing the client).
 - iii. Line 10, it is unclear how the adapter is selected based on the selected process. (i.e. selection data elements contained in the connection request are used to select the adapter; Examiner suggests amending the claim as follows: selecting the adapter from a plurality of adapters based on the selection data elements).

- d. Claims 2-12, 14-15, 17, 19-20, and 22-25 did not cure the deficiencies of claims 1, 13, 16, 18, and 21.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. **Claims 21-25 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

8. Claims 21-25 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 21-25 are directed to a process (method), however, the process does not include a physical structure and are not tied to another statutory class, as such the claims are not directed to statutory subject matter.

In contrast, a "computer implemented method" is a process claim with defined structural and functional interrelationships and tied to machine statutory class and therefore directed to statutory subject matter.

Appropriate correction or amendment is required.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. **Claims 1-3, 5-7, 9, 11, 13-14, 16-19, and 21-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoennig et al. (hereinafter Hoennig, previously cited) (U.S. Patent 7,003,773) in view of Schechter et al. (hereinafter Schechter) (U.S. Patent 7,380,250 B2).**

11. **As to claim 1**, Hoennig teaches the invention substantially as claimed including a computer program product, tangibly embodied in a machine-readable storage device, the computer program product comprising instructions operable to cause data processing apparatus to:

identify at a client abstraction layer on a server, one or more selection data elements in a client request received at the client abstraction layer (col. 14, lines 36 – 45 and col. 22, lines 5 – 49), where each selection data element specifies an adapter type, a client type, or a data describing the client (step 304, Fig. 3, col. 14, lines 42-45 and 52-59).

12. Hoennig does not explicitly disclose use the selection data elements to select an adapter at the client abstraction layer to convert communication between an application

running on the server and one or more client programs, the adapter being used by the client abstraction layer as an intermediary, the adapter hiding the client-specific behavior from the application running on the server the adapter being designed for use with a particular client program.

13. However Schechter teaches use the selection data elements (i.e. device capabilities 430, Figure 4) to select an adapter at the client abstraction layer (i.e. device interaction component 400, Figure 4) to convert communication between an application running on the server (i.e. server object 405, Figure 4) and one or more client programs (mobile devices 220A-220C, Figure 2, col. 2, lines 25-28 and col. 11, lines 19-57), the adapter being used by the client abstraction layer as an intermediary (col. 12, lines 5-8), the adapter hiding the client-specific behavior from the application running on the server (col. 3, lines 34-37 and col. 6, lines 26-37), the adapter being designed for use with a particular client program (i.e. WML, col.11, lines 49-57).

14. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have modified the Adapter Manager of Hoennig with the teachings of a Device Interaction Engine from Schechter because this feature would have provided a system which uses device capabilities to select an appropriate adapter set for interacting with the device (col. 2, lines 64-67 and col. 3, line 1 of Schechter).

15. **As to claim 2**, Hoennig teaches wherein selecting an adapter comprises:

performing a multi-stage selection process to select an adapter (determining module performs selection process 122, Fig. 1, col. 11, lines 11-13), the multi-stage selection process comprising:

performing an adapter-request process for selecting an adapter (determining module 122, Fig. 1, col. 11, lines 11-13) based on the selection data elements that specify the adapter type (specification of request interface, col. 14, lines 38-39);

if the adapter-request process fails to select an adapter, performing a client-identification process for selecting an adapter (determining module 122, Fig. 1, col. 11, lines 11-13) based on the selection data elements that specify the client type (unique identifier assigned to request interface, col. 14, lines 39-41); and

if the client-identification process fails to select an adapter, performing a client-description process for selecting an adapter (determining module 122, Fig. 1, col. 11, lines 11-13) based on the selection data elements that specify data describing the client (step 304, Fig. 3, col. 14, lines 52-59).

16. **As to claim 3**, Hoennig teaches wherein the selected adapter makes use of a client capability particular to the client (step 307, Fig. 3).

17. **As to claim 5**, Hoennig teaches wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that makes use of a particular client capability (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 10-20).

18. **As to claim 6**, Hoennig teaches wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that requires the least communication with the client (requiring interface directly available at service object, col. 11, lines 10-15).

19. **As to claim 7**, Hoennig teaches wherein the client has multiple client capabilities, and wherein the operation to select an adapter comprises:

identifying multiple adapters suitable for communicating with the client (Adapter Manager Determining Module 122, Fig. 1, col. 11, lines 4-10); and

selecting an adapter from the multiple adapters that is operable to make use of the greatest number of the multiple client capabilities (step 602, Fig. 6).

20. **As to claim 9**, Hoennig teaches wherein the client-description process comprises:

using the specification of data describing the client (e.g. adapter request) to identify a client capability (e.g. request interface) (steps 601-603, Fig. 6); and

wherein the adapter selected to communicate with the client conforms to the client capability (e.g. request interface) (steps 601-603, Fig. 6).

21. **As to claim 11**, Hoennig teaches wherein the client-identification process comprises looking up the specification of the client type in a table (Select from library, step 602, Fig. 6).

22. **As to claim 13**, claim is rejected for the same reasons as claim 1 since claim 13 recites the same or equivalent invention, see the rejection to claim 1 above. In addition Hoennig teaches a server having a processor and memory (col. 12, line 62 – col. 13, line 8) operable to run an application (server data processing device, col. 7, lines 59-63); and

a plurality of client-specific adapters, each adapter in the plurality enabling communication between the application on the server and a client (Interface Adapter Library 155, Fig. 1).

23. **As to claim 14**, this claim is rejected for the same reasons as claim 2 since claim 14 recites the same or equivalent invention; see the rejection to claim 2 above.

24. **As to claims 16-17**, these claims are rejected for the same reasons as claims 1-2, respectively, since claims 16-17 recite the same or equivalent invention, see the rejections to claims 1-2 above.

25. **As to claims 18-19**, these claims are rejected for the same reasons as claims 1-2, respectively, since claims 18-19 recite the same or equivalent invention, see the rejections to claims 1-2 above.

26. **As to claims 21-22**, these claims are rejected for the same reasons as claims 1-2 since claims 21-22 recite the same or equivalent invention, see the rejections to claims 1-2 above.

27. **Claims 4 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoennig et al. (hereinafter Hoennig, previously cited) (U.S. Patent 7,003,773) in view of Schechter et al. (hereinafter Schechter) (U.S. Patent 7,380,250 B2) as applied to claims 3 and 9 above, and further in view of Kanevsky (previously cited) (U.S. Patent 6,300,947 B1).**

28. **As to claim 4**, Hoennig as modified by Schechter does not explicitly disclose wherein the client capability comprises the capability to execute instructions in a scripting language.

29. However Kanevsky teaches wherein the client capability comprises the capability to execute instructions in a scripting language (URL/CGI scripts, col. 8, lines 16-19 of Kanevsky).

30. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the user object of Hoennig as modified by Schechter with the teachings of a client from Kanevsky because this feature would have further provided a different viewing-access strategy for such visual devices varying, for example, from standard PC monitors, laptop screens and palmtops to webphone and digital camera displays, to any device, with a display, capable of web browsing, and from large windows to small windows (col. 1. lines 60-65, of Kanevsky).

31. **As to claim 10**, Hoennig as further modified teaches wherein the client capability is a screen size (user request 300d, Fig. 4 of Kavensky).

32. **Claims 8, 15, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoennig et al. (hereinafter Hoennig, previously cited) (U.S. Patent 7,003,773) in view of Schechter et al. (hereinafter Schechter) (U.S. Patent 7,380,250 B2) as applied to claims 1, 13, and 18 above, and further in view of Dutta (previously cited) (U.S. Publication No. 2001/0047383 A1).**

33. **As to claim 8** Hoennig as modified by Schechter does not explicitly disclose wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device, an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript.

34. However Dutta teaches wherein the adapter is selected from a plurality of adapters stored on a server, the plurality of adapters including one or more of a mobile adapter for a client that comprises a mobile device (embedded device, paragraph [003]), an HTML adapter for a client that supports HTML, an XML adapter for a client that supports XML, an RMI adapter for a client that supports RMI, and a JavaScript adapter for a client that supports JavaScript (client interfaces use common communication protocols for client server communication, paragraph [0028]).

35. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the adapters of Hoennig as modified by Schechter with the teachings of adapters from Dutta because this feature would have further provided a system and method with which to communication with legacy systems over the internet (paragraph [0011] of Dutta).

36. **As to claim 15**, this claim is rejected for the same reasons as claim 8 since claim 15 recites the same or equivalent invention; see the rejection to claim 8 above.

37. **As to claim 20**, this claim is rejected for the same reasons as claim 8 since claim 20 recites the same or equivalent invention; see the rejection to claim 8 above.

38. **Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hoennig et al. (hereinafter Hoennig, previously cited) (U.S. Patent 7,003,773) in view of Schechter et al. (hereinafter Schechter) (U.S. Patent 7,380,250 B2) as applied to claim 1 above, and further in view of Tran et al. (hereinafter Tran, previously cited) (U.S. Publication No. 2003/0033356 A1).**

39. **As to claim 12**, Hoennig as modified by Schechter does not explicitly teach wherein the specification of the client type comprises a specification of a browser and version number.

40. However Tran teaches wherein the specification of the client type comprises a specification of a browser and version number (client request parsed by CDM for Browser version, paragraphs [0045] and [0049]).

41. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the user request of Hoennig as modified by

Schechter with the teachings of client request from Tran because this feature would have further provided a wireless server with extensibility capabilities to allow wireless clients to be dynamically configured and identified by the wireless server (paragraph [0021] of Tran).

42. Claims 23-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hoennig et al. (hereinafter Hoennig, previously cited) (U.S. Patent 7,003,773) in view of Schechter et al. (hereinafter Schechter) (U.S. Patent 7,380,250 B2), as applied to claim 21 above, and further in view of Sarkar (previously cited) (U.S. Publication No. 2004/0225656 A1).

43. As to claim 23, Hoennig as modified by Schechter does not explicitly disclose wherein a second process from the plurality of processes comprises:

receiving a client type specified in the connection request;

mapping the client type to the adapter, wherein the mapping performs a query in a property file that maps a plurality of client types to a plurality of adapters; and

selecting the adapter corresponding to the client type.

44. However Sarkar teaches wherein a second process from the plurality of processes comprises:

receiving a client type specified in the connection request (paragraphs [0030]-[0032]);

mapping the client type to the adapter, wherein the mapping performs a query in a property file that maps a plurality of client types to a plurality of adapters (paragraphs [0031]-[0034]); and

selecting the adapter corresponding to the client type (paragraph [0032]).

45. It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have further modified the adapter manager of Hoennig as modified by Schechter with the teachings of request intake module from Sarkar because this feature would have further provided a mechanism which allows for an integrated system in which various components are de-coupled and allow communication from any front-end user to any back-end resource to fulfill a client request (paragraph [0026] of Sarkar).

46. **As to claim 24**, Hoennig teaches the method of claim 23, wherein a third process from the plurality of processes comprises:

receiving information descriptive of the client's capabilities in the connection request (col. 10, lines 4-11);

receiving a set of client conditions for each adapter belonging to the plurality of adapters (step 304, Fig. 3), wherein the set of client conditions specify the minimum requirements for using that particular adapter (step 304, Fig. 3, col. 14, lines 42-45 and 52-59); and

selecting one or more adapters that meet the client conditions (step 307, Fig. 3, col. 15, lines 10-13).

47. **As to claim 25**, Hoennig teaches the method of claim 24, wherein the third process further comprises selecting the adapter from the one or more adapters based on a priority list (e.g. classifier, col. 3, lines 25-30), wherein the priority list ranks the plurality of adapters according to pre defined criteria (e.g. classifier, col. 3, lines 25-30).

Conclusion

48. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

49. U.S. Patent 6,237,041 B1 to Haal et al., U.S. Patent 7,216,142 B2, to Whipple et al., U.S. Patent 7,356,562 B2 to Yoon, U.S. Patent 7,424,539 B2 to Gbadegesin, U.S. Patent 7,484,243 B2 to Dankovich et al., U.S. Publication No. 2002/0038340 A1 to Whipple et al., U.S. Publication No. 2002/0078371 A1 to Heilig et al., U.S. Publication No. 2004/0221002 A1 to Karim, and U.S. Publication No. 2008/0034200 A1 to Polcha et al. disclose selecting adapters for clients.

50. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KimbleAnn Verdi whose telephone number is (571)270-1654. The examiner can normally be reached on Monday-Friday 7:30am-5:00pm EST..

51. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

52. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Meng-Ai An/
Supervisory Patent Examiner, Art Unit 2195

KV
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